

PRODUCT DEVELOPMENT LAB
POUGHKEEPSIE

TO: Mr. H. T. Marcy September 11, 1958

SUBJECT: STRETCH Half Microsecond
Memory

This is to advise you of Product Planning's recommendations concerning the STRETCH half microsecond memory. Based on the attached analysis, by Dr. Kolsky, the estimate by Mr. Dunwell that development and release of a one half microsecond memory in 1959 would cost over \$300,000, and the assumption that the price of the one half microsecond memory would be at least as great as the price of a two microsecond memory, it is our recommendation that we do not develop, release, and produce the half microsecond memory for use with the STRETCH systems. You will note from Dr. Kolsky's report that replacing the two 0.6 microsecond boxes by two 2.0 microsecond memory units results in an average of only 2.5% loss in performance in the five cases tested.

If you agree with our recommendations, then an investigation of our current contractual commitments with Los Alamos and the Bureau of Ships for delivery of half microsecond memories should be initiated to find out if we can substitute our standard two microsecond memories.

Assuming that it turns out not to be necessary for us to produce half microsecond memories for STRETCH systems, then it is our recommendation that some exploratory development be continued in the area of half microsecond or faster access time but with some emphasis on reduction of costs by a factor of about eight. As you know, the per bit cost of a half microsecond memory today appears to be about sixteen times as much as a two microsecond memory.

May we have the benefit of your thinking on this subject?

D. W. Pendery, Manager
Product Planning, Poughkeepsie

DWP:jbm
Attachment

cc: Dr. W. Buchholz
Mr. S. W. Dunwell
Dr. H. G. Kolsky
Mr. D. W. Sweeney